

Ph.D. in Chemistry

Ph.D. in Chemistry (students entering with bachelor's degree)

Core Courses

| | | |
|-------------------------|--|---|
| CHEM 605 | Advanced Organic Chemistry I: Structure | 3 |
| CHEM 661 or CHEM 664 | Instrumental Analysis Laboratory | 3 |
| CHEM 610 or CHEM 673 | Advanced Inorganic Chemistry Biochemistry | 3 |
| CHEM 658 | Advanced Physical Chemistry | 3 |

Electives

| | | |
|---|-----------------------------|----|
| CHEM 7XX | 700-level chemistry courses | 6 |
| 700-level courses | | 6 |
| Chemistry or related courses ¹ | | 18 |

Research

| | | |
|----------|-----------------------|----|
| CHEM 792 | Pre-Doctoral Research | 36 |
|----------|-----------------------|----|

Total Credits

78

¹ Courses must be above the 500 level.

The qualifying examinations must be passed. A dissertation must be submitted and defended.

Ph.D. in Chemistry (students entering with master's degree)

| | | |
|------------------------------|-----------------------------|-----------|
| CHEM 7XX | 700-level chemistry courses | 6 |
| 700-level courses | | 6 |
| Chemistry or related courses | | 12 |
| Research | | |
| CHEM 792 | Pre-Doctoral Research | 36 |
| Total Credits | | 60 |

A dissertation must be submitted and defended.

While it is not required that the core courses be taken, students will have to pass qualifying examinations in these areas. Therefore, it is recommended that they take these courses unless they already have a strong background in these areas.

Qualifying Examination

Within the first year after admission to the program, students must take a qualifying examination, which will include questions on the required core courses as well as recently offered elective courses. Students have two chances to pass all of the sections. If any section is failed or is not taken on the first trial, one more attempt is allowed. The examinations are given in January and June, and students should notify the Graduate Advisor for Chemistry of their intent to take the examinations at least a month before they are scheduled. After passing the qualifying examinations, students should select a research advisor and a doctoral research committee. The committee must meet the approval of the Departmental Graduate Advisor for Chemistry. It should consist of, at a minimum, the research advisor, three departmental faculty members and one person from outside the department. The graduate advisor should be notified of these selections. Forms are available from the departmental office to report the selections.

Dissertation

Within six months of passing the qualifiers, the student must give an oral presentation to their research committee, detailing the background of the selected research project, and the student's plans for carrying out the research. The committee must formally approve the proposal. The committee may meet at other times to follow the student's progress, at the request of the student and the research advisor.

After the dissertation is completed, the student will present the research to the committee and the public, and defend it. It is expected that the committee will have been given copies of the document several weeks before the defense meeting to ensure that they have adequate time to review it. The date, time and place of the defense must be posted throughout campus and e-mailed to the department at least two weeks ahead of time.

Obtaining a Ph.D. is expected to entail more than just fulfilling formal requirements. There are skills which students will develop while completing the formal program. We call these skills "**The Informal Requirements.**"

Seminar

Each semester, Ph.D. students must register for and attend departmental seminars. The credits awarded for this seminar are not applied to fulfillment of degree requirements.

Grades

All students must maintain a grade point average of at least 3.0. Students entering without the MS degree must also attain a GPA of 3.0 in the core courses.